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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,314	06/20/2003	Eric Scott Micko	1187-1.CIP	6164

7590 09/06/2005
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EXAMINER

LEE, SHUN K

ART UNIT PAPER NUMBER

2878

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/600,314

Applicant(s)

MICKO, ERIC SCOTT

Examiner

Shun Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2005 and 23 June 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 and 10 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 10 February 2005. These drawings are acceptable.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto *et al.* (US 5,461,231) in view of Schwarz (US 3,829,693).

In regard to claims 1, 3, 8, and 9, Sugimoto *et al.* disclose (Figs. 1, 2, 3a, 3b, 5, 6, 7a, 7b, and 11) a passive infrared (IR) motion sensor, comprising:

- (a) at least a first passive IR detector (3, 3a, 3b) having two and only two elements defining a first spacing therebetween, the first passive IR detector (3, 3a, 3b) monitoring a first subvolume of space and outputting a first signal having a first frequency (Figs. 3a and 7a) when a moving object (H) passes in the first subvolume of space;
- (b) at least a second passive IR detector (4, 4a, 4b, 15, 15a, 15b, 15c, 15d) having two and only two elements defining a second spacing therebetween, the second spacing being equal to the first spacing and all four elements having the same size as each other (*i.e.*, substantially the same structure; column 4, lines 1-4), the

second passive IR detector (4, 4a, 4b, 15, 15a, 15b, 15c, 15d) monitoring a second subvolume of space and outputting a second signal having a second frequency (Figs. 3b and 7b) when the moving object (H) passes in the second subvolume of space, the second frequency being different than the first (Figs. 3a, 3b, 7a, and 7b);

(c) a processing system (7, 8, 9, 10, 11, and 12) receiving the first and second signals and at least partially based on the first and second signals, outputting a signal indicating the presence of the moving object (H) only if both the first and second frequencies (Figs. 7a and 7b) are substantially simultaneously received (column 5, lines 17-20), and otherwise not outputting the signal indicating the presence of the moving object (H).

The sensor of Sugimoto *et al.* lacks an optics system at least partially optically superposing the first and second subvolumes, the optics system defining a first focal length associated with the first detector and a second focal length associated with the second detector, the first and second focal lengths not being equal to each other.

Schwarz teaches (column 1, line 56 to column 2, line 15; Fig. 1) an optics system defining a first focal length associated with the front of the detector and a second focal length associated with the back of the detector, the first and second focal lengths not being equal to each other, in order to detect both a narrow and a wide field of view.

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide an optics system defining a first focal length associated with the first detector and a second focal length associated with the second detector in the

sensor of Sugimoto *et al.*, in order to detect a narrow field of view with the first detector and a wide field of view with the second detector.

In regard to claims 4, 6, and 7, the method steps are implicit for the modified apparatus of Sugimoto *et al.* since the structure is the same as the applicant's apparatus of claims 1, 3, 8, and 9.

In regard to claim 2 (which is dependent on claim 1) and claim 5 (which is dependent on claim 4), the sensor and method of Sugimoto *et al.* lacks an explicit description that the first and second detectors are housed separately from each other. However, detector housings are well known in the art. For example, Schwarz teach (Fig. 2) that a sensor (14) and associated optics (12,13) are mounted in a housing (11). In addition, Sugimoto *et al.* further disclose (column 4, lines 61-65) alternative embodiments wherein the sensors are mounted as a single detector or multiple detectors. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a single housing or in respective separate housings in the sensor and method of Sugimoto *et al.*, in order to mount the sensors as a single detector or multiple detectors.

Response to Arguments

4. Applicant's arguments filed 23 June 2005 have been fully considered but they are not persuasive.

Applicant argues (third paragraph on pg. 9 of remarks filed 23 June 2005) that combining Sugimoto *et al.* with Schwarz would result in two detectors as taught in Sugimoto *et al.* each one of which has two optics of differing focal lengths. In response

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to applicant's argument, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Schwarz state (column 3, lines 6-9) that "Obviously, of course, more than one detector may be used, for example two, with one mounted a fourth of the length of a long space, and the other three fourths". Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide an optics system defining a first focal length associated with the first detector and a second focal length associated with the second detector in the sensor of Sugimoto *et al.*, in order to detect a narrow field of view with the first detector and a wide field of view with the second detector.

Applicant argues (last paragraph on pg. 9 of remarks filed 23 June 2005) that Sugimoto *et al.* teach separate detector substrates but nowhere teach or suggest the use of separate housings. Examiner respectfully disagrees. The lack of detail in a description does not automatically lead to a conclusion of unobviousness since what is chosen for inclusion within a disclosure depends on a variety of factors. Moreover, Sugimoto *et al.* state (column 3, lines 58-67) that "The exemplary system includes infrared detectors 3 and 4 arranged in parallel, an optical system 2, and detection regions e1, e2, e3, and e4 of which the regions e1 and e2 are spaced from each other and are vertically arranged covering a human height. The detector 3 is provided with a

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pair of pyroelectric infrared sensors 3a and 3b optically correspond to the detection regions e1 and e2. The detector 4 is provided with a pair of pyroelectric infrared sensors 4a and which optically correspond to the detection regions e3 and e4 spaced from each other and horizontally arranged” and (column 4, lines 61-65) that “This example is different from the first example in that the sensors 3a, 3b, 4a, and 4b are mounted on a single detector 13. The circuit is the same as that of FIG. 2. The waveforms of signals are also the same as those shown in FIGS. 3 and 4. This example can save the space in the system”. Thus, Sugimoto *et al.* teach alternative embodiments wherein the sensors are mounted as a single detector or multiple detectors. Schwarz was cited as teaching (Fig. 2) that a sensor (14) and associated optics (12,13) are mounted in a housing (11). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a single housing or in respective separate housings in the sensor, system, and method of Sugimoto *et al.*, in order to mount the sensors as a single detector or multiple detectors.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (571) 272-2439. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SL


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